REMARKS

The present Supplemental Amendment amends claims 1, 3, 9, 13, 16, 20 and 22, and leaves claims 2, 4-8, 10-12, 14, 15, 17-19, 21, and 23-26 unchanged. Therefore, the present application has pending claims 1-26.

Interview Summary

Applicants thank the Examiner for granting the interview conducted on January 16, 2008. In the interview, arguments were presented to overcome the cited references, particularly Downs and Chernock. The Examiner and Applicants' representative did not come to an agreement regarding the rejections. However, the Examiner provided recommendations for further amending the claims to overcome Downs and Chernock. In this response, Applicants have reiterated the arguments made during the interview, and have further amended the claims to incorporate the Examiner's recommendations.

35 U.S.C. §103 Rejections

Claims 1-7 and 9-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,226,618 to Downs, et al. ("Downs") in view of U.S. Patent No. 6,772,209 to Chernock et al. ("Chernock"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited, are not taught or suggested by either Downs or Chernock, whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, the claims were amended to more clearly describe that the present invention is directed to a contents control method as recited, for

example, in independent claim 1. The present invention is also directed to a content control system, a contents transmitting apparatus, a content receiving apparatus, and a computer program product as similarly recited, for example, in independent claims 9, 13, 16, 20, and 22.

The present invention, as recited in independent claim 1, and as similarly recited in independent claims 9, 13, 16, 20, and 22, provides a content control method for controlling a process on a receiving side apparatus. The method is applied to content including a plurality of blocks transmitted from a transmitting side apparatus to the receiving side apparatus. The method includes adding first control information to one or more blocks of the content at the transmitting side apparatus. According to the present invention, the one or more blocks of the content is not equal to the whole content. Also according to the present invention, the first control information is a watermark that specifies conditions for permitting processes to be applied to the one or more blocks of the content. This feature is illustrated, for example, in Fig. 5, which shows the first control information including processes and corresponding conditions that indicate what level of user or transmission source is permitted to apply the process to the content. Other exemplary conditions are described on page 23, line 19 to page 26, line 12.

Furthermore, according to the present invention, the method includes receiving and storing in a first location of the receiving side apparatus the content including the first control information added to the one or more blocks of the content transmitted from the transmitting side apparatus. The method also includes receiving by the receiving side apparatus a process designation corresponding to the content transmitted from the transmitting side apparatus to the receiving side apparatus. According to the present invention, second control information is stored

in a second location of the receiving side apparatus, which receives the content transmitted from the transmitting side apparatus. Also according to the present invention, the second control information specifies conditions for which applying processes to the content is permitted. Further, according to the present invention, the conditions specified by the second control information includes at least one type of information selected from a group consisting of user information of the user about to use the contents, location information of the receiving apparatus, area information of the receiving apparatus, and time information (see, e.g., page 40, line 7 to page 41, line 12 (step 804)). If and only if a condition specified by the second control information satisfies a condition corresponding to the process designation specified by the first control information, applying a process corresponding to the process designation to the received the one or more blocks of the content. The prior art does not disclose all of these features.

To further illustrate features of the present invention, the Examiner's attention is directed to Fig. 5, and page 23, line 19 to page 26, line 12. As shown and described, the first control information of the present invention is added to a block of a content to be transmitted from a transmitting side apparatus to a receiving side apparatus. The first control information defines condition(s) for permitting application of a process to the content. For example, Fig. 5 shows the first control information including processes and corresponding conditions that indicate what level of user or transmission source is permitted to apply the process to the content. Other examples of conditions specified by the first control information are described on page 23, line 19 to page 26, line 12.

The Examiner's attention is also directed to examples of the second control information of the present invention, which are described on page 40, line 7 to page

41, line 12. The second control information is stored in the receiving side apparatus, and specifies conditions for which applying processes to the content is permitted. For example, as described in the cited text, second control information includes the ID of the user about to use the contents, level information of the user, information relating to the location/area where the receiving side apparatus is installed, or time information.

In the present invention, when the receiving side apparatus receives a process designation from a user, the receiving side apparatus reads from the second control information stored therein the condition corresponding to the process designation, and determines whether or not the read condition satisfies the condition specified by the first control information added to the block of the content sent from the transmitting side apparatus to the receiving side apparatus, as described on page 4, lines 8-18. If the read condition satisfies the condition specified by the first control information, then the designated process is performed. That is to say, the designated process is applied to the block of the content as described on page 4, lines 18-20.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either Downs or Chernock, whether taken individually, or in combination with each other.

Downs discloses an electronic content delivery system. However, there is no teaching or suggestion in Downs of the content control method, content control system, computer program product, content transmitting apparatus, and content receiving apparatus of the present invention, as recited in the claims.

Downs' electronic content delivery system securely provides data to a user's system. The data is encrypted such that the data can only be decrypted by a data decrypting key. The data decrypting key is encrypted using a first public key, and the encrypted data is accessible to the user's system. As described in column 22, line10 to column 10, line 24 of Downs, the content provider(s) use a license watermark to embed data in the content. The embedded data may include the content identifier, content owner, and other information, such as the publication data and geographic distribution region. This watermark is referred to as the copyright watermark. Upon reception, the end-user device watermarks the copy of the content with the content purchaser's name and the transaction ID, and with other information such as the data of license and usage conditions. This watermark is referred to as the license watermark. Any copy of the content, obtained in an authorized manner or not, and subject to audio processing that preserves the content quality, carries the copyright and license watermarks. In this way, Downs discloses a system that enables usages of the content to be traced so as to deter piracy. More specifically, Downs disclose a watermark system and method for tracking electronic content transactions and delivery of content to prevent illegal piracy.

One feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes adding first control information to one or more blocks of the content at the transmitting side apparatus, where the one or more blocks of the content is not equal to the whole content, and where the first control information is a watermark that specifies conditions for permitting processes to be applied to the one or more blocks of the content. Downs does not disclose this feature.

For example, Downs does not disclose where first control information is added to one or more blocks of the content at the transmitting side apparatus. As described in column 22, lines 15-22 of Downs, "upon reception," the end-user device(s) 109 watermarks the copy of the content 113, where the end-user device(s) 109 correspond to the receiving device of the present invention. Accordingly, Downs does not disclose the claimed feature.

By way of further example, Downs does not disclose where the one or more blocks of content is not equal to the whole content, as in the present invention. The content disclosed in Downs refers to content as whole – not blocks of content. Therefore, Downs is quite different from the present invention.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes receiving and storing in a first location of the receiving side apparatus the content including the first control information added to the one or more blocks of the content transmitted from the transmitting side apparatus. Downs does not disclose this feature.

As previously discussed, Downs fails to disclose where first control information is added to one or more blocks of the content at the transmitting side apparatus. Accordingly, it follows that Downs fails to disclose where the receiving side apparatus receives and stores the content including the first control information, which was added to the one or more blocks of the content transmitted from the transmitting side apparatus.

Yet another feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes where if and only if a condition specified by the second control information satisfies a condition corresponding to the process designation specified by the first control information, a

step is performed of applying a process corresponding to the process designation to the received the one or more blocks of the content. Downs does not disclose this feature.

For example, Downs does not teach or suggest comparing, at the receiving side apparatus, the first control information and the second control information stored in the receiving side apparatus to determine whether the one or more blocks including the first control information are allowed to be processed. As described in column 7, Lines 56-65 Downs discloses where "Digital watermarking also provides the means to identify the origin of authorized or unauthorized copies of Content. An initial watermark in the Content is embedded by the content proprietor to identify the content proprietor, specify copyright information, define geographic distribution areas, and add other pertinent information. A second watermark is embedded in the Content at the End-User Device(s) to identify the content purchaser (or licensee) and End-User Device(s), specify the purchase or license conditions and date, and add any other pertinent information." Accordingly, Downs teaches content processing on a content basis, rather than content processing on a block per block basis.

The watermarking disclosed in Downs is used for identifying the origin of copies of content. The content provider uses a "Copyright Watermark" to embed information such as the content identifier, content owner and geographic distribution region etc. in the content, the End-User Device watermarks the copy of the content with the content purchaser's name, date of license and Usage Conditions etc., as the "license watermark" as described in Col. 22 Lines 10 to 21 of Downs. The above feature enables the source tracking of any copy of the content. Downs does not contemplate where the content is controlled by a block. This feature of the present invention is not taught nor suggested by Downs.

Still yet another feature of the present invention, as recited in claim 3, includes where the one or more blocks of the content has an area to which control needed/unneeded information indicative of need/non-need for control of the content is added, and if and only if the control needed/unneeded information indicates "need for control", the step of adding the first control information is performed. Downs does not disclose this feature.

Claim 3 provides where information indicating whether block-based control is needed or not needed is added to an area of the one or more blocks of content. If the block-based control is needed, the step of adding the first control information recited in claim 1 is performed. Accordingly, the first control information is added only to blocks which are required to be controlled. When the receiving side apparatus receives blocks of content and finds the area indicating control needed information in such blocks among a plurality of blocks of the content, the receiving side apparatus can recognize that control is required for the blocks, and then performs the comparison between the first control information and the second control information stored therein. If a result of the comparison indicates that the second control information condition satisfies the condition specified by the first control information, the receiving side apparatus can apply a process indicated by the process designation to the blocks, thereby effectively achieving block-based control. Contrary to the Examiner assertions the cited text of Downs (i.e., column 21, lines 23-42), does not teach this feature.

Therefore, Downs fails to teach or suggest "adding first control information to one or more blocks of the content at the transmitting side apparatus, wherein said one or more blocks of the content is not equal to the whole content, and wherein said first control information is a watermark that specifies conditions for permitting

processes to be applied to said one or more blocks of the content" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Furthermore, Downs fails to teach or suggest "receiving and storing in a first location of the receiving side apparatus said content including the first control information added to said one or more blocks of the content transmitted from the transmitting side apparatus" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Further, Downs fails to teach or suggest "if and only if a condition specified by the second control information satisfies a condition corresponding to the process designation specified by the first control information, applying a process corresponding to the process designation to the received said one or more blocks of the content" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Even further, Downs fails to teach or suggest "wherein said one or more blocks of the content has an area to which control needed/unneeded information indicative of need/non-need for control of the content is added, and if and only if the control needed/unneeded information indicates "need for control", the step of adding the first control information is performed" as recited in claim 3.

The above noted deficiencies of Downs are not supplied by any of the other references, particularly Chernock. Therefore, combining the teachings of Chernock with Downs still fails to teach or suggest the features of the present invention, as now more clearly recited in the claims.

Chernock discloses a method for rule-based distribution and management of content in a distributed hierarchy of storage devices. However, there is no teaching or suggestion in Chernock of the content control method, content control system,

computer program product, content transmitting apparatus, and content receiving apparatus of the present invention, as recited in the claims.

Chernock teaches where for a network with a distributed hierarchical broadcast architecture, a method for efficiently and reliably distributing data content and remotely managing the storage of content. Both the distribution and the storage management methods are rule-based, utilizing network resources in an efficient manner. Simple and reliable mechanisms are provided for ensuring both data integrity and control over storage utilization. At each stage throughout the network hierarchy, content is distributed to nodes in the subsequent stage based on rules. The rules may be modified at each stage. Only one device in the hierarchy is required to maintain detailed information of the storage characteristics of storage devices and content therein in stages which are subsequent to it in the network. The recipient device owner specifies a set of preferences which may be used for local filtering, or which the owning (or other) entity may use to select data which targets the client's interests. The downloaded data may be presented to the client in the form of an interactive application, video, audio, still image, or other format.

One feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes adding first control information to one or more blocks of the content at the transmitting side apparatus, where the one or more blocks of the content is not equal to the whole content, and where the first control information is a watermark that specifies conditions for permitting processes to be applied to the one or more blocks of the content. Chernock does not disclose this feature.

For example, Chernock does not disclose adding first control information to one or more blocks of content at the transmitting side apparatus, where the first

control information is watermark information. Chernock disclose adding data to content at a source device. The data of Chernock is not the same as the first control information (watermark) of the present invention, and it would not be obvious to modify Downs in view of Chernock to obtain the claimed feature.

By way of further example, Chernock does not disclose where the one or more blocks of content is not equal to the whole content, as in the present invention. The content disclosed in Chernock refers to content as whole – not blocks of content. Therefore, Chernock is quite different from the present invention.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes receiving and storing in a first location of the receiving side apparatus the content including the first control information added to the one or more blocks of the content transmitted from the transmitting side apparatus. Chernock does not disclose this feature.

As previously discussed, Chernock fails to disclose where first control information is added to one or more blocks of the content at the transmitting side apparatus, where the first control information is a watermark. Accordingly, it follows that Chernock fails to disclose where the receiving side apparatus receives and stores the content including the first control information, which was added to the one or more blocks of the content transmitted from the transmitting side apparatus.

Yet another feature of the present invention, as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22, includes where if and only if a condition specified by the second control information satisfies a condition corresponding to the process designation specified by the first control information, a step is performed of applying a process corresponding to the process designation to

the received the one or more blocks of the content. Chernock does not disclose this feature.

A feature of the present invention includes enabling the receiving side apparatus to perform block-based control of the received content by embedding the control information to one or more blocks of the content at the transmitting side apparatus before transmitting the content to the receiving side apparatus. The Examiner relies upon Chernock for teaching that the second control information is stored in a second location of the receiving side apparatus and compared with the first control information for compliance prior to processing the content, and where the second control information specifies conditions for which applying processes to the content is permitted. However, it appears that the Examiner has not addressed the important term "said one or more blocks" as recited in claim 1. Chernock does not teach or suggest adding the first control information to one or more blocks at the transmitting side apparatus.

Still yet another feature of the present invention, as recited in claim 3, includes where the one or more blocks of the content has an area to which control needed/unneeded information indicative of need/non-need for control of the content is added, and if and only if the control needed/unneeded information indicates "need for control", the step of adding the first control information is performed. Chernock does not disclose this feature, and it does not appear that the Examiner relies upon Chernock for teaching this feature.

Therefore, Chernock fails to teach or suggest "adding first control information to one or more blocks of the content at the transmitting side apparatus, wherein said one or more blocks of the content is not equal to the whole content, and wherein said first control information is a watermark that specifies conditions for permitting

processes to be applied to said one or more blocks of the content" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Furthermore, Chernock fails to teach or suggest "receiving and storing in a first location of the receiving side apparatus said content including the first control information added to said one or more blocks of the content transmitted from the transmitting side apparatus" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Further, Chernock fails to teach or suggest "if and only if a condition specified by the second control information satisfies a condition corresponding to the process designation specified by the first control information, applying a process corresponding to the process designation to the received said one or more blocks of the content" as recited in claim 1, and as similarly recited in claims 9, 13, 16, 20, and 22.

Even further, Chernock fails to teach or suggest "wherein said one or more blocks of the content has an area to which control needed/unneeded information indicative of need/non-need for control of the content is added, and if and only if the control needed/unneeded information indicates "need for control", the step of adding the first control information is performed" as recited in claim 3.

Both Downs and Chernock suffer from the same deficiencies relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Downs and Chernock, in the manner suggested by the Examiner, does not render obvious the features of the present invention, as now more clearly recited in the claims 1-7 and 9-26. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 1-7 and 9-26 as being unpatentable over Downs in view of Chernock is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1-7 and 9-24.

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Downs in view of Chernock, further in view of U.S. Patent No. 6,372,974 to Gross, et al. ("Gross"). This rejection is traversed for the following reasons. Claim 8 is dependent on claim 1. Therefore, Applicants submit that claim 8 is allowable for at least the same reasons discussed previously regarding independent claim 1.

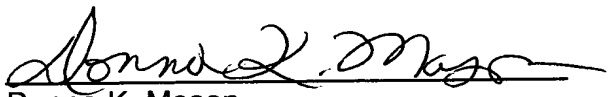
Claims 25 and 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Downs in view of Chernock, further in view of U.S. Patent No. 5,968,133 to Latham. This rejection is traversed for the following reasons. Claims 25 and 26 are dependent on claim 1. Therefore, Applicants submit that claims 25 and 26 are allowable for at least the same reasons discussed previously regarding independent claim 1.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-26 are in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger & Malur, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. 500.41155X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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